IN THE CLAIMS:

1. ~ 4. (Canceled)

5. (Original) A method of increasing voltage readout sensitivity of a CMOS active pixel sensor, said sensor including a first photodiode having leakage current flow, a first reset transistor for resetting photodiode voltage and a first sense transistor connected to said photodiode, the method comprising the steps of:

commonly connecting a second sense transistor a drain and source of said first sense transistor, said second sense transistor is of a type complementary to said first sense transistor;

commonly connecting a second reset transistor to said first reset transistor for activating both first and second reset transistors by a reset signal;

shielding a second photodiode from light incident on said first photodiode and connecting said second photodiode to said second reset transistor and second source transistor; and

reading out voltage upon illumination of incident light on said first photodiode by activating a select transistor connected to said first and second sense transistors.

6. (Original) The method according to claim 5, wherein said first sense transistor is a NMOS transistor an second sense transistor is a PMOS transistor.

7. ~ 8. (Canceled)

9. (Currently Amended) A method for compensating loss of sensitivity of a CMOS active pixel sensor, comprising the steps of:

compensating for loss of pixel voltage of the CMOS active pixel sensor caused by leakage current of a first photodiode connected to a gate of a first sense transistor using leakage current of a second photodiode connected to a gate of a second sense transistor complementary to the first sense transistor,

wherein compensating comprises increasing the amount of current flowing to a bit line through the second sense transistor in an amount substantially proportional to the amount of decreased current flow to the bit line through the first sense transistor due to a decreased voltage of the first photodiode.

10. (Previously Presented) The method of claim 9, wherein the second photodiode is shielded from light incidence.

11. (Canceled)

12. (Canceled)

13. (Currently Amended) A method for operating a CMOS active pixel sensor, comprising the steps of:

resetting a voltage level of a first photodiode and a second photodiode;

applying light energy to the first photodiode;

reading a pixel voltage of the CMOS active pixel sensor by sensing the voltage of the first photodiode after light energy is applied; and

compensating for loss of pixel voltage of the CMOS active pixel sensor caused by leakage current of a first photodiode connected to a gate of a first sense transistor using leakage

current of a second photodiode connected to a gate of a second sense transistor complementary to the first sense transistor,

wherein compensating comprises increasing the amount of current flowing to a bit line through the second sense transistor in an amount substantially proportional to the amount of decreased current flow to the bit line through the first sense transistor due to a decreased voltage of the first photodiode.

14. (Previously Presented) The method of claim 13, wherein the second photodiode is shielded from light incidence.

15. (Canceled)

16. (Canceled)